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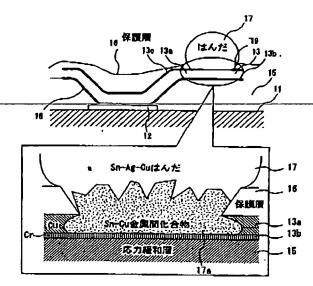
株式会社 日立製作所内 Tokyo, (JP)

(54)Title: WIRING BOARD AND ITS PRODUCTION METHOD, SEMICONDUCTOR DEVICE AND ITS PRODUCTION METHOD, AND ELECTRONIC APPARATUS

(54)発明の名称 配線基板およびその製造方法、半導体装置およびその製造方法並びに電子機器

(57) Abstract

A high-density wiring board having a high connection reliability and produced at low cost. The wiring board is characterized by comprising a board having an electrode and covered with an insulating layer in which a hole is made so as to expose the electrode, a wiring connected to the electrode and formed of a layer adhering to the insulating layer and made of Cr or Ti and a layer adhering to the Cr or Ti layer and made of Cu, a protective film covering the wiring and having therein a hole for soldering, and solder for external connection formed in the hole by diffusion-alloying the Cu layer and reaching the Cr or Ti layer for establishing connection.



16...PROTECTIVE LAYER

17...90LDER

a...SII-Ag-Cu SOLDER

178...SA-CU INTERMETAL LIC COMPOUND

15...STRESS RELAXATION LAYER







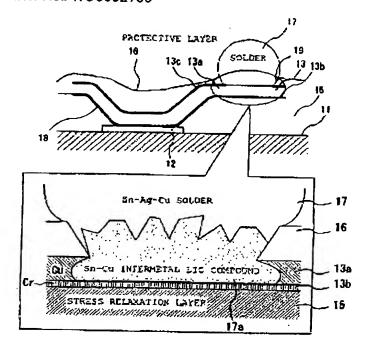
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WO0052755

WIRING BOARD AND ITS PRODUCTION METHOD, SEMICONDUCTOR DEVICE AND ITS PRODUCTION METHOD, AND ELECTRONIC APPARATUS HITACHI, LTD.

Inventor(s):NARIZUKA, Yasumori ;ITOU, Mitsuko ;YAMAGUCHI, Yoshihide ;TENMEI, Hiroyuki Application No. JP0000695 JP, Filed 20000209, A1 Published 20000908

Abstract: A high-density wiring board having a high connection reliability and produced at low cost. The wiring board is characterized by comprising a board having an electrode and covered with an insulating layer in which a hole is made so as to expose the electrode, a wiring connected to the electrode and formed of a layer adhering to the insulating layer and made of Cr or Ti and a layer adhering to the Cr or Ti layer and made of Cu, a protective film covering the wiring and having therein a hole for soldering, and solder for external connection formed in the hole by diffusion-alloying the Cu layer and reaching the Cr or Ti layer for establishing

connection.

Int'l Class: H01L02312; H01L02315 H05K00334

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